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ABSTRACT

Florida's current State Comprehensive Plan identifies seven goals of education that define the scope of the state's commitment to public education and set up priorities of effort. This report analyzes enrollments and expenditures for 1974-75 and those projected for 1980-81 and 1985-86 in terms of these seven goals. It shows that in 1974-75 approximately 82 percent of the expenditures for public education from state and local tax sources was spent on programs in the areas of basic skills and general education. Expenditures per student, however, were highest for programs in advanced and professional skills. Although the report presents a number of statistical findings, it also points out that it is almost impossible to differentiate expenditures between certain of the goals. This is particularly true for the first two goals, basic skills and general education, since both are often fused together within the same program. (Author)

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ANALYSIS OF PROJECTED ENROLLMENTS AND EXPENDITURES BY GOAL FOR PUBLIC EDUCATION IN FLORIDA IN 1974-75, 1980-81 AND 1985-86

U.S. DEPARTMENT OF HEALTH EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

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State of Florida
Department of Education
Tallahassee, Florida
Ralph D. Turlington, Commissioner
June, 1976

EA 010 189

I. INTRODUCTION

This report does two things:

1. It analyzes enrollments and expenditures in terms of the goals of education for Florida.

2. It projects the analysis into the future.

The analysis encompasses all levels of public education, kindergarten through graduate programs. It shows the relationship of each level to the goals of education, with this relationship measured in terms of full-time equivalent students served. It also shows the expenditure of funds for the goals and how this varies among goals and among levels of education.

In projecting the analysis into the future, the intent was not to prescribe what will occur. The projections for 1980-81 and 1985-86 show enrollments and expenditures which can be anticipated if present program objectives are met. They do not account for possible new types of programs or for possible curtailment of programs because of economic consideration or changing priorities. Therefore, this document should not be construed as a plan. It is an analytical report for use within the Department when developing plans.

This report was prepared by the Strategy Planning and Management Information System section in the Office of the Associate Deputy Commissioner. Data for the report were provided by the planning offices in the Division of Public Schools, the Division of Vocational Education, the Division of Community Colleges and the Division of Universities. Representatives of the divisions, sitting as the Department Planning Committee, reviewed the approaches used by the staff in preparing the report and advised on validity of interpretations, particularly as they were affected by comparability or incomparability of data between divisions. For 1974-75 data, it is felt that the problem of comparability between divisions has been adequately addressed. Hence, this report may represent the most successful effort thus far to present a consistent analysis across all levels of Florida public education.

Since the 1974-75 data serve as the base for projections, this consistency also holds in the categorization of data in the projections. Moreover, since the projections come directly from the divisions, they represent the best thinking of the persons who are most qualified to make projections for the individual levels of education. However, the projections from different divisions show differential growth rates in both enrollments and expenditures. In the time available for preparation of this report, it was not possible to determine whether the assumptions used in making the projections have the desired degree of consistency from the standpoint of state educational policy. Whether the projections will be different with further analysis of differences among assumptions used by individual divisions is yet to be determined.

This report is an outgrowth of work on the second phase of the education element of the State Comprehensive Plan. The State Comprehensive Plan is a policy document for guiding the development of Florida. Education is one of several elements of the plan. Phase I of the education element, entitled Education Policy for the State of Florida, was adopted by the State Board of Education in 1975. The element contains the goals of education on which the analyses herein are based.

Phase II of the education element will translate the policies in Phase I into operational terms. Thus, wherever possible, the present status of education will be described in terms of quantitative indicators with direct relevance to the goals. Objectives for the future can then be identified in terms of those indicators. The data collection and analysis for accomplishing this are continuing in the Department. However, the overall guidelines for preparing elements of the State Comprehensive Plan are now being re-considered by the Division of State Planning, Department of Administration. Therefore, specific work for preparing Phase II of the education element has been halted in the Department of Education.

II. OVERVIEW OF FLORIDA EDUCATION

Florida's goals of education as presented in Education Policy for the State of Florida define the scope of the state's commitment to public education and set up priorities of effort. These goals are restated below:

Goal 1. Basic Skills. All Floridians must have the opportunity to master the basic skills for communication and computation (listening, speaking, reading, writing and arithmetic). Basic skills are fundamental to success.

Goal 2. General Education. All Floridians shall have the opportunity to acquire the general education fundamental to career and personal development and necessary for participation in a democratic society. This includes skills, attitudes and knowledge for general problem-solving and survival, human relations and citizenship, moral and ethical conduct, mental and physical health, aesthetic, scientific and cultural appreciation, and environmental and economic understanding.

Goal 3. Vocational Competencies. All Floridians shall have the opportunity to master vocational competencies necessary for entry level employment by the time they leave full time education. For persons who continue formal education through advanced or professional programs, vocational competencies will be in areas of professional employment.

Goal 4. Professional Competencies. Floridians with demonstrated interest, academic background and aptitude shall have the opportunity to acquire professional competencies necessary for employment in a profession and to update their competencies periodically. Programs of professional studies shall be organized to assure that Florida's and society's needs for professionals are met.

Goal 5. Advanced Knowledge and Skills. Floridians with demonstrated interest, academic background and aptitude shall have the opportunity to acquire advanced knowledge and skills in the academic disciplines or other specialized fields of study and to update their knowledge and skills periodically. Programs of advanced academic training shall be organized to meet Florida's and society's needs for highly trained specialists.

Goal 6. Research and Development. The public education network shall seek solutions to local, regional, state and national problems through organized research and development. Research and development shall be organized to solve pressing problems and to expand the store of knowledge in all areas of human endeavor, including education.

Goal 7. Recreation and Leisure Skills. Floridians shall have the opportunity to pursue recreation and leisure skills which satisfy the recreational and cultural needs of individuals in areas outside of general education.

Because of the difficulty of collecting information on each of these goals individually, in this analysis the goals are grouped into five goal areas: Goal 1 and 2 (Basic Skills and General Education), Goal 3 (Vocational Skills), Goal 4 and 5 (Advanced and Professional Skills), Goal 6 (Research), and Goal 7 (Recreation and Leisure Skills). Figure 1 shows what programs are included under each goal. Goals 1 and 2 include

FIGURE 1
PROGRAMS BY GOALS

	Goals 1 & 2 Basic & General	Goal 3 Vocational Skills	Goals 4 & 5 Advanced & Professional	Goal 6 Research	Goal 7 Recreation & Leisure Skills
PUBLIC SCHOOLS					
K-12 Regular Program	X				
Exceptional Students	X				
Prevocational	X				
Consumer Home Economics	X				
Secondary Preparatory		X			
Area Voc. Tech. Schools		X			
Adult Education	X				
COMMUNITY COLLEGES					
University Parallel	X				
Occupational		X			
Developmental	X				
Citizenship	X				
Avocational					X
STATE UNIVERSITIES					
Demonstration Schools	X				
Lower Level Undergrad.	X				
Upper Level Undergrad.	X(17%)		X(83%)		
Graduate			X		
Professional Schools			X		
Research				X	
Continuing Education					X

the K-12 program, the exceptional student program, adult education, prevocational exploratory, consumer home economics, most of the community college program except courses classified as occupational, the lower level undergraduate program in the universities, and about one-sixth of the upper level program. Goal 3 includes the occupational programs in the high schools, and the occupational preparatory and supplemental programs in area vocational-technical schools and community colleges. Most of the upper level undergraduate program and the graduate and professional programs comprise Goals 4 and 5. Goal 6, includes both the research and public service activities in the State University System. Recreational and leisure skill programs are offered in the community college avocational program and the continuing education program of the state universities.

Figure 2 shows how the education dollar is spent in Florida in support of these goals. Included in this table are data for each goal area on the number of full-time equivalent students involved, total expenditures, expenditures from state and local tax services and the average expenditures for each full-time student. Projections for each of these for 1980-81 and 1985-86 are also given. Educational programs for basic skills are fully supported from public tax funds. Educational programs for general

FIGURE 2

EXPENDITURES BY GOALS
1974-75, 1980-81, 1985-86[1]

YEARS	GOALS	FTE Stulents[2] (in 1000's)	%age Total	Expenditures from State & Local Tax Sources[3]	%age Total	Expenditures from Other Sources[4]	Total Expenditures (in millions)	Total Expenditures per FTE
1974-75	1 & 2 - BASICS/GENERAL	1645.4	88%	$1781.5	82%	$ --	$1834.7	$1122
	3 - VOCATIONAL	148.0	8	164.8	8	49.5	214.3	1448
	4 & 5 - ADVANCED/PROF.[5]	69.5	4	118.9	6	36.9	155.8	2242
	6 - RESEARCH/SERVICE	--	--	94.0	4	--	160.8	--
	7 - LEISURE SKILLS	3.1	*	0.0	0	5.0	5.0	1613
	TOTAL	1866.0	100%	$2159.2	100%	$ 91.4	$2370.6	
1980-81	1 & 2 - BASICS/GENERAL	1865.2	87%	$2061.1	81%	$ --	$2137.4	$1152
	3 - VOCATIONAL	195.3	9	213.8	8	78.2	292.0	1439
	4 & 5 - ADVANCED/PROF.[5]	91.2	4	157.0	6	67.3	229.3	2514
	6 - RESEARCH/SERVICE	--	--	113.3	4	--	193.8	--
	7 - LEISURE SKILLS	4.6	*	0.0	0	11.7	11.7	2543
	TOTAL	2156.3	100%	$2545.2	100%	$157.2	$2864.2	
1985-86	1 & 2 - BASICS/GENERAL	2035.7	87%	$2257.5	79%	$ --	$2351.5	$1162
	3 - VOCATIONAL	226.2	10	228.3	10	96.0	342.3	1434
	4 & 5 - ADVANCED/PROF.[5]	101.0	3	174.2	6	117.7	248.7	2462
	6 - RESEARCH/SERVICE	--	--	128.0	4	--	219.0	--
	7 - LEISURE SKILLS	6.6	*	0.0	0	18.0	18.0	2727
	TOTAL	2369.5	100%	$2788.0	99%	$231.7	$3179.5	

[1]Expenditures for 1980-81 and 1985-86 are in 1976 dollars, with no allowance made for inflation.
[2]All FTE's are given as three-quarter averages.
[3]Includes Federal Revenue Sharing.
[4]Mainly student fees.
[5]Instruction only. Does not include Research/Service.
*Less than 1%.

education and vocational competencies provided for youth are fully supported with public resources while adults taking part in such programs may be assessed fees to cover a portion of the cost. Programs to help adults achieve professional competencies and advanced knowledge and skills are partially supported with public funds and partially supported with funds from other sources, primarily student fees. Research and service are supported by a combination of public and private resources. Courses in recreation and lesiure skills for adults are totally supported by student fees.

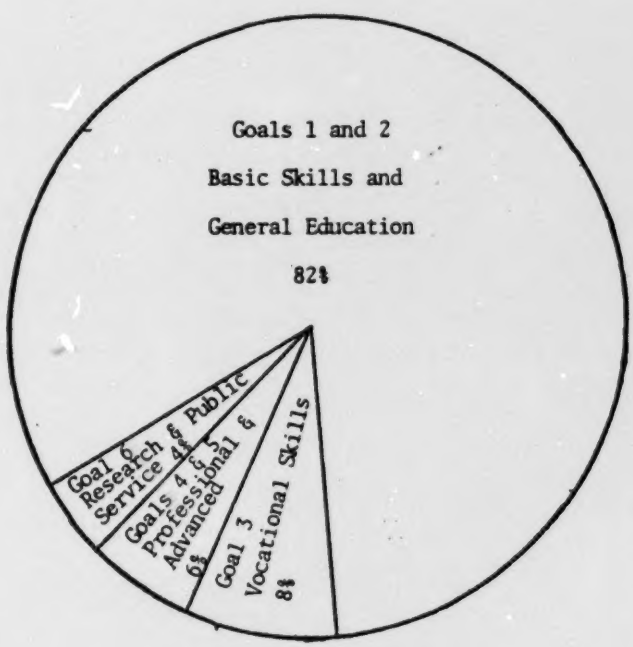
The table shows that total expenditures for all seven goals in 1974-75 were approximately $2.4 billion, an average, excluding research, of $1185 for each of the some 1,870,000 full-time equivalent students. It is estimated that by 1985-86 public education in the state will enroll the equivalent of about 2,400,000 full-time students, an increase of about 27%. In terms of today's dollars, programs to serve these students may cost about $3.2 billion, $2.8 billion of this from state and local sources, an increase without considering inflation of almost 30%. Most of these projected additional expenditures would be required to support increased enrollment. A few programs may also require higher expenditures per student.

Looking at the data from the standpoint of goals, this table reveals that nearly nine-tenths of the students are enrolled in programs emphasizing Goal 1 and 2, basic skills and general education, supported by slightly more than four-fifths of the state and local expenditures for education. The preponderance of effort that goes to achieving Florida's first two educational goals is shown more graphically by Figure 3.

FIGURE 3

EXPENDITURES FOR PUBLIC EDUCATION
FROM STATE AND LOCAL TAX SOURCES

State of Florida, 1974-75

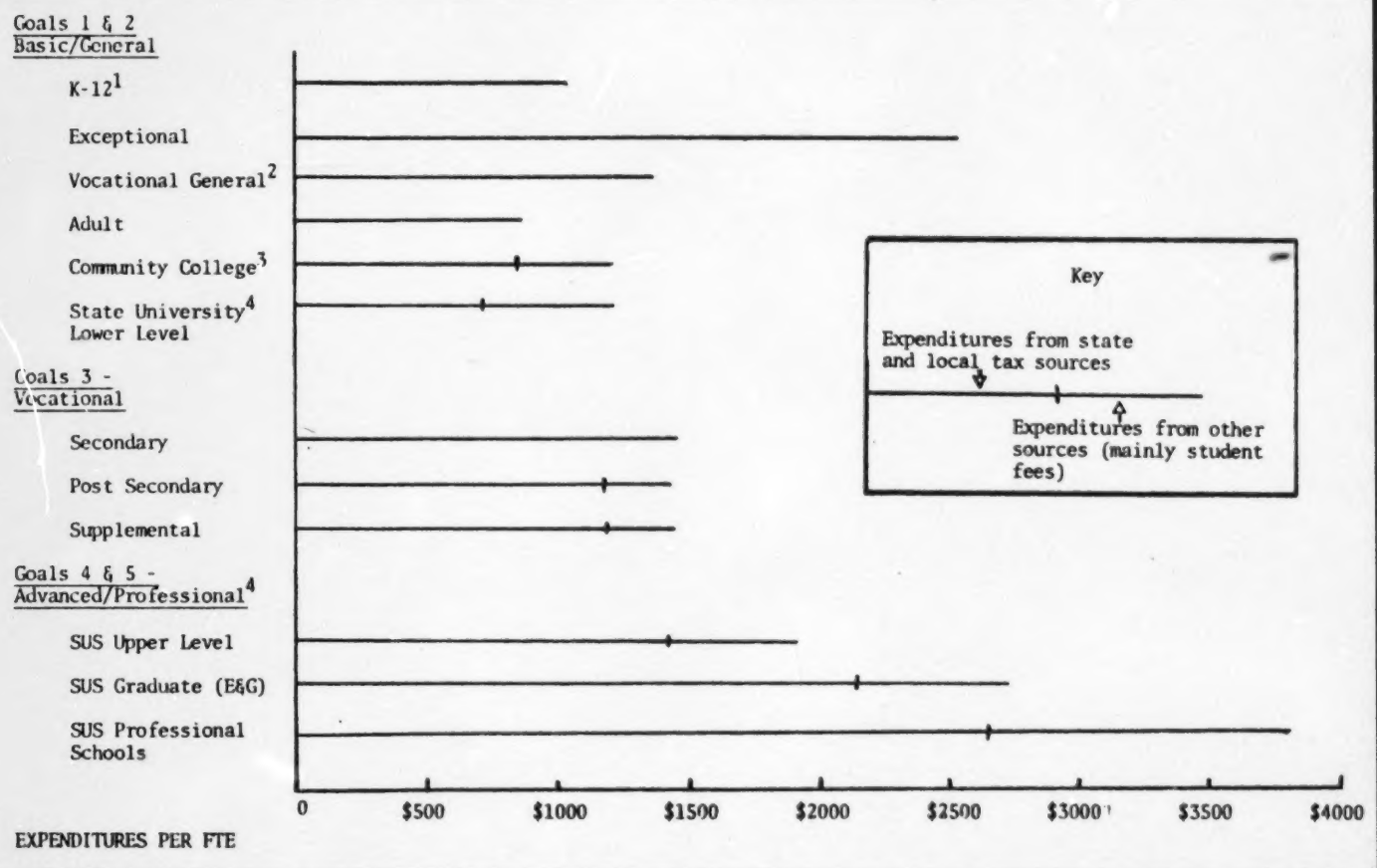


Florida spends less than 10% of its educational dollar to achieve Goal 3, vocational competencies, about 6% for Goals 4 and 5, advanced and professional skills and 4% for Goal 6, research and public service. As already pointed out, current policy directs that programs to achieve Goal 7, recreational and leisure skills, are to be self supporting.

While the state spends more for teaching basic skills and general education than it does in the other goal areas, the expenditures per student are lower than for any of the other goals, as shown by Figure 4. Currently, twice as much per student is spent at the advanced and professional level than at the basic skills-general education level. However, the Goal 1-2 component is so large that even if all programs, including the exceptional student program, were funded at the same rate per student, current expenditures per student for the teaching of the basic skills and general education would be increased by only $60.

FIGURE 4

EXPENDITURES PER FTE
1974-75



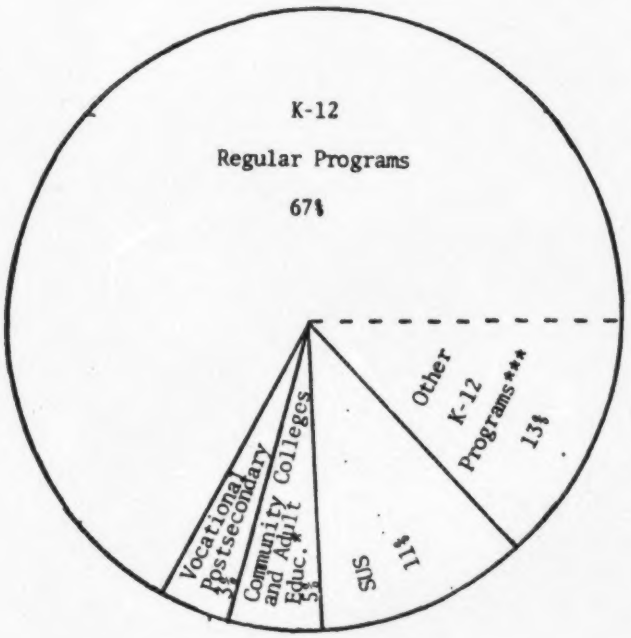
[1]Includes Demonstration Schools.
[2]Prevocational & consumer home economics.
[3]Lower Division University parallel only.
[4]Instruction only. Does not include research and service.

From the standpoint of levels of education, the K-12 regular program overshadows the entire rest of the system with respect to both number of people served and expenditures. Not including any of the vocational courses in the public schools or the exceptional student programs, the K-12 program requires about two-thirds of Florida's state and local expenditures for education, as shown by Figure 5. If vocational and exceptional programs are included the public elementary and secondary schools in Florida require about four-fifths of all tax contributions to education.

FIGURE 5

EXPENDITURES FOR EDUCATION
FROM STATE AND LOCA TAX SOURCES

1974-75



*Does not include Community College programs classified as "Occupational," which are included in Postsecondary Vocational. Includes district adult education programs.
**Includes Research and Public Service.
***Includes vocational and exceptional student programs.

The above summarizes Florida's present and near-future education from the standpoint of five goal areas. Below is a more detailed analysis of the programs offered within each of these goal areas.

III. PROGRAM NEEDS: GOALS 1 AND 2

As stated above, the attempt to achieve the first two of Florida's educational goals--basic skills and general education--absorbs most of the personnel and money that go into public education. Some 88% full-time equivalent students are served by programs which focus on these two goals. These programs require 82% of the expenditures from state and local taxes for education.

Although in the simplest terms the teaching of basic skills and general education can be conceptualized separately, it is, in practice, difficult to differentiate them as they are taught in the classroom. There are several reasons why this is so. For one, they are interdependent. Mastery of the basic communication and computation skills is fundamental to learning in many of the subject areas classified as general education. On the other hand, there are many elements that are part of general education--attitudes toward self and others, self-help skills, non-academic learnings associated with adapting to the school environment--that must be taught and developed as a foundation to the teaching of the basic skills. Second, in many classes the two goal areas are not taught in isolation, but are fused together in the program. Third, present financial accounting practices do not provide separate cost analyses for the two goals.

Despite the interdependence of these two goals, the balance between them shifts from level to level. The emphasis on the teaching of the basic skills is strongest at the kindergarten through third grade level. General education for the child at this level stresses socialization--helping the child to relate to others. The balance between the two goals in the fourth through ninth grades may be more nearly equal, though there are generally wide variations from grade four to grade nine. During these years students are expected to master the basic skills and apply these skills to a broad range of subject areas geared to helping them understand themselves, their culture, and the natural, social, and political world at large. Basic skills programs at the secondary level are usually remedial in nature--helping youth who have not mastered the basics earlier. The secondary program and the first two years of college are essentially general in focus. In addition to a deeper study of the subject areas introduced in the middle grades, students are given a chance to explore areas that offer possible career opportunities. For individuals who have already set their occupational goals, courses regarded as part of the general education program may--for them--be actually pre-professional.

Data for all programs emphasizing Goals 1 and 2 are presented on Figure 6. During 1974-75 nearly 1.5 million youth in grades K-12 were served by the public schools in Florida. Of these, approximately 27% were in grades K-3, 56% in grades 4-9, and 17% in grades 10-12. Almost 7% of the K-12 students were served by exceptional student programs. Service for these students ranged from one hour a week with a speech therapist to full-time placement in one of the programs.

FIGURE 6

GOALS 1 & 2: BASIC SKILLS AND GENERAL EDUCATION

		Enrollment (In 1000's)	FTE[1] (In 1000's)	%age Total	Expenditures from State & Local Sources[2,3] (In millions)	%age Total	Expenditures from Other Sources[3,6] (in millions)	Total Expenditures Per FTE[3]
1974-75	PUBLIC SCHOOLS							
	K-12 Regular Program and Demonstration Schools	1,471.6	1,386.0	84%	$1452.2	82%	--	$1048
	Exceptional Students	97.1	49.0	3	124.6	7	--	2540
	Vocational (pre-vocational & consumer home economics)	328.7	40.8	2	55.9	3	--	1373
	Adult Education	409.0	27.4	2	24.0	1	--	876
	TOTAL		1,503.2		$1656.7			
	COMMUNITY COLLEGES							
	University Parallel	199.9	92.4	6%	$ 80.2	4%	$ 31.4	1208
	Developmental	38.4	12.3	*	10.2	*	4.4	1153
	Citizenship	88.7	3.9	*	3.2	*	1.3	1150
			108.6		$ 93.6		$ 37.1	
	STATE UNIVERSITIES[4]							
	Lower Level Undergraduate	25.7	24.3	1%	$ 17.7	1%	$ 11.6	1204
	Upper Level Undergraduate[5]	63.3	9.3	*	13.5	*	4.5	1911
	TOTAL		33.6		$ 31.2		$ 16.1	
	GRAND TOTAL	**	1,645.4	100%	$1781.5	100%	$ 53.2	
1980-81	PUBLIC SCHOOLS							
	K-12 Regular Program and Demonstration Schools	1,592.3	1,494.7	81%	$1569.5	76%	--	1050
	Exceptional Students	148.4	75.0	4	190.5	9	--	2540
	Vocational (pre-vocational & consumer home economics)	430.0	60.1	3	82.5	5	--	1373
	Adult Education	657.8	44.1	2	38.9	2	--	882
	TOTAL		1,673.9		$1881.4			
	COMMUNITY COLLEGES							
	University Parallel	275.0	126.0	7%	$ 116.9	6%	$ 45.8	1291
	Developmental	61.8	17.2	1	14.8	*	5.9	1200
	Citizenship	119.1	4.8	*	3.7	*	1.5	1093
	TOTAL		148.0		$ 135.4		$ 53.2	
	STATE UNIVERSITIES[4]							
	Lower Level Undergraduate	31.1	30.5	1	$ 25.5	1%	$ 15.0	1324
	Upper Level Undergraduate[5]	86.3	12.8	*	18.8	1	8.1	2102
	TOTAL		43.3		$ 44.3		$ 23.1	
	GRAND TOTAL	**	1,865.2	100%	$2061.1	100%	$ 76.3	
1984-85	PUBLIC SCHOOLS							
	K-12 Regular Program and Demonstration Schools	1,708.6	1,597.0	79%	$1682.0	75%	--	1053
	Exceptional Students	161.0	81.4	4	206.7	9	--	2540
	Vocational (pre-vocational & consumer home economics)	497.9	69.6	3	93.6	4	--	1373
	Adult Education	579.5	54.3	3	47.9	2	--	883
	TOTAL		1,802.3		$2032.2			
	COMMUNITY COLLEGES							
	University Parallel	352.0	161.0	8%	$ 155.6	7%	$ 61.0	1345
	Developmental	78.1	21.8	1	18.7	1	7.5	1201
	Citizenship	149.4	6.0	*	4.7	*	1.9	1104
	TOTAL		188.8		$ 179.0		$ 70.4	
	STATE UNIVERSITIES[4]							
	Lower Level Undergraduate	29.3	30.5	1%	$ 25.5	1%	$ 15.0	1324
	Upper Level Undergraduate[5]	97.1	14.1	*	20.8	1	8.9	2102
	TOTAL		44.6		$ 46.3		$ 23.9	
	GRAND TOTAL	**	2,035.7	100%	$2257.5	100%	$ 94.3	

[1]All FTE's are given as three-quarter averages.
[2]Includes Federal Revenue sharing.
[3]Expenditures for 1980-81 and 1985-86 are in 1976 dollars, with no allowance made for inflation.
[4]Includes only the portion of costs associated with instruction, not the portion associated with research and service.
[5]Represents 17% of Upper Level FTE and expenditures.
[6]Mainly student fees.
*Less than 1%.
**Not totaled because column contains duplication.

Vocational education is generally associated with Goal 3. However, two areas funded as part of this program are included as part of general education--prevocational exploratory (grades 7-9) and consumer home economics. These programs are classified here as general education because they are not intended to teach specific vocational skills.

The adult education programs provided by the school districts supply opportunities for adults of all ages to meet the requirements for a high school diploma and to pursue personal goals. These programs include courses in basic communication and computation skills and in general education.

Over the eleven year period from 1974 to 1985 the school age population is projected to increase by 27% and the adult population (age 17-64) by 40%. Figure 7 shows the increase of the different public school programs

FIGURE 7

GOALS 1 and 2

PROGRAM GROWTH - PUBLIC SCHOOLS - 1974-1985

	1974-75	1980-81 *	% Change 74-80	1985-86 *	% Change 74-85
K-12 Program					
FTE in 1000's	1386.0	1494.7	8	1597.0	15
Total Expenditures (in millions)	$1452.2	$1569.5	8	$1682.0	16
Per FTE	$1048	$1050	2	$1053	5
Exceptional					
FTE in 1000's	49.0	75.0	53	81.4	166
Total Expenditures (in millions)	$124.6	$190.5	53	$206.7	166
Per FTE	$2540	$2540	0	$2540	0
Vocational General					
FTE in 1000's	40.8	60.1	47	69.6	71
Total Expenditures (in millions)	$55.9	$82.5	48	$95.3	70
Per FTE	$1373	$1373	0	$1373	0
Population Age 5-17 in 1000's	1831.2	2178.1	19	2326.0	27
Adult Education					
FTE in 100's	27.4	44.1	61	54.3	98
Total Expenditures (in millions)	$24.0	$38.9	62	$47.9	100
Per FTE	876	882	3	883	6
Population Age 15-64 in 1000's	4487.4	5450.2	21	6292.6	40

*In 1976 dollars.

during the same period. If these population projections are accurate, the K-12 enrollments are somewhat underprojected--the projections show only a 15% increase. No increase in expenditures per F.T.E. is projected for the K-12 basic program. During this 1974-85 period the exceptional student program is expected to increase until it is two thirds larger than it was in 1974-75. During the past three years this program has made great strides to identify and extend service to all eligible students. The program expects to reach its goal of full service by 1978. The increase projected for 1980 and 1985 reflect this increase. Expenditures per F.T.E., already about two and a half times the cost differential for the basic programs, are expected to remain the same.

Prevocational exploratory and consumer home economics programs are projected to increase in the number of students served. Projections are that by 1980 all students in grades 7-9 will be served in the exploratory program, each student spending an average of one eighth of the school day in the program. Twenty percent of the students in grades 10-12 would be served in the consumer home economics program per year.

The adult population is expected to increase by 40% over the 1974-75 period. Adult education programs provided by school districts are projected to increase by almost 100%. However, even with this increase the districts would be serving less than one percent of the adults from age 18 to 64. However, many more adults are served in the community college and university programs.

The general education program at the college level comprises the first two years of college. In addition, at the upper undergraduate level it is estimated that on the average about one sixth of a student's load is taken for purposes of general education. Projected increases for these programs may be seen on Figure 8. As already noted the adult population is projected to increase by some 40%. During this period the community colleges are anticipating that proportional increases in enrollment will be almost twice that amount, without appreciable increases in expenditures per full-time student. The state universities are expecting increases in enrollment by 1980, with about the same enrollment from 1980 to 1985.

To recapitulate, over the next ten years in Florida increases in enrollment are expected that are lower than the population increase for the basic K-12 program, and somewhat greater than the population increase in the first two years of college, particularly in the community colleges. Exceptional student programs and general vocational programs are expected to extend service to a larger proportion of the K-12 population.

FIGURE 8

GOALS 1 and 2

PROGRAM LEVEL - COLLEGES AND UNIVERSITIES - 1974-1985

	1974-75	1980-81[1]	% Change 74-80	1985-86[1]	% Change 74-85
COMMUNITY COLLEGES					
University Parallel					
FTE in 1000's[2]	92.4	126.0	36	161.0	74
State & Local					
Expenditures in millions	$80.2	$116.9	46	$155.6	94
Expenditures per FTE	868	928	7	966	11
Developmental					
FTE in 1000's[2]	12.3	17.2	40	21.8	77
State & Local					
Expenditures in millions	$10.2	$ 14.8	45	$ 18.7	83
Expenditures per FTE	829	860	4	858	3
Citizenship					
FTE in 1000's[2]	3.9	4.8	31	6.0	54
State & Local					
Expenditures in millions	$ 3.2	$ 3.7	16	$ 4.7	47
Expenditures per FTE	821	771	6	783	5
STATE UNIVERSITY SYSTEM					
Lower Level					
FTE in 1000's[2]	24.4	30.5	25	30.5	25
State & Local					
Expenditures in millions[3]	$17.7	$ 25.5	44	$ 25.5	44
Expenditures per FTE[3]	725	836	15	836	15
Population Age 18-64 in 1000's	4487.4	5450.2	21	6292.6	40

[1]In 1976 dollars.
[2]All FTE's are given as three-quarter averages.
[3]Includes only the portion of costs associated with instruction, not those associated with research and service.

IV. PROGRAM NEEDS: GOALS 3-7

Goal 3. Vocational Competencies. The state strategy for achieving Goal 3 is to provide quality occupational programs to all persons--at each level of instruction--who want, need, and can profit from such programs. Occupational preparatory programs in entry-level skills are provided in district schools for students in grades 10-12 and for potential school drop-outs in grades 7-9. Area vocational-technical schools and community colleges offer preparatory programs for persons who have completed or left high school and wish to master a skill before entering the labor market. Supplemental vocational programs are also provided for persons who are already employed and who want to increase or update their skills or acquire new ones through part-time study. As Figure 9 indicates, in

FIGURE 9

GOAL 3 - VOCATIONAL SKILLS[1]

YEARS	PROGRAMS	Enrollment	FTE	Total Expenditures (In millions)[2]	Costs per FTE
1974-75	SECONDARY	241,536	72,026	$105.6	$1466
	POST SECONDARY	154,853	48,922	69.6	1429
	SUPPLEMENTAL	192,810	27,055	38.8	1434
	TOTAL	589,199	148,003	$214.3	
1980-81	SECONDARY	291,539	92,874	$136.2	$1466
	POST SECONDARY	216,491	66,051	100.5	1521
	SUPPLEMENTAL	271,113	36,329	55.4	1525
	TOTAL	779,143	195,254	$292.0	
1985-86	SECONDARY	324,878	104,286	$152.9	$1466
	POST SECONDARY	257,599	78,593	122.4	1557
	SUPPLEMENTAL	323,317	43,324	67.1	1549
	TOTAL	905,794	226,203	$342.3	

[1]Occupational Prepatory only. Prevocational Exploratory and Consumer Home Economics included in Goals 1 and 2.
[2]Expenditures for 1980-81 and 1985-86 are in 1976 dollars with no allowances made for inflation.

1974-75 some 242,000 students took part in high school occupational preparatory programs at a cost of about $124.4 million. Projections for the enrollment in these programs in the future are based on the assumption that all students should receive direct job-related instruction while in high school.* This would require 10% of the students in grades 7-9 and 67% of the students in grades 10-12 to be enrolled in job preparatory instruction each year. In today's dollars this would cost about $136.2 million by 1980 and $152.9 million by 1985.

Preparatory programs at the post-secondary level served almost 155,00 people in 1974-75 at a cost of $69.9 million. Another 193,000 adults took supplemental vocational courses at a cost of $38.8 million. The goal is that by 1980 these programs should serve about 216,500 and 271,000, respectively, at a total cost of about $155.9 million (1976 dollars). It is projected by that 1985 the cost of these programs in today's dollars will be $189.5 million. Although this means an overall enrollment growth in vocational programs from 1974 to 1985 of about 54%, this is not out of line in view of projected population growth, as may be seen in Figure 10.

FIGURE 10

VOCATIONAL

ENROLLMENT AS A PERCENTAGE OF POPULATION

	74-75	80-81	85-86
Vocational Secondary Enrollment as % of population age 15-17	52%	52%	52%
Vocational Post-Secondary Enrollment as % of population age 18-44	6%	7%	7%
Vocational Supplemental Enrollment as % of population age 18-44	6%	8%	8%

*The program objectives stated above are taken from 1975-76 Florida State Plan for the Administration of Vocational Education under the Vocational Education Amendments of 1968, Part II, pp. 29, 37, 40.

Goals 4 & 5. Advanced and Professional. Education Policy for the State of Florida states: "A prime role of public education is to reconcile differences between individual needs and the needs of society. It helps individuals find themselves, while providing literate citizens and skilled workers of society." It is essential to maintain a balance between the needs of individuals as expressed in their aptitudes and interests, and the needs of society for people who possess certain skills and knowledge. Nowhere is this balance more difficult to maintain, yet more essential, than in higher education. It is essential that students planning their academic programs be made as aware of the future needs of society as they are of their own interests and abilities. In a democratic society, however, there is a limit to how far the education system should go in restricting individual choice. This is true not only from the standpoint of principle but also from practical considerations; that is, it is difficult to predict how students will respond to specific career choices, and equally difficult to know just what job openings will occur in the future. Therefore, while attempting to direct students into promising fields through counseling, universities and colleges should try to maintain program offerings that, in general, reflect students' interests and aptitudes.

During the next decade the need for people with degrees in many disciplines is likely to increase at a lower rate than in the past. The relative contribution to enrollment due to students under the age of 23 will decrease as the growth of that segment of the population levels off. Already half of the upper level undergraduate students are older than 23, and the enrollment contribution of this segment of the population should increase at about the same rate as the increase in the adult population. However, the need for retraining specialists will likely increase. Rapidly changing methods and the expansion of knowledge will make such retraining necessary. If second careers become more common, additional advanced training will be in demand. All in all, programs designed to provide opportunities for acquiring professional competencies and advanced knowledge and skills should continue to grow.

Advanced programs in a number of disciplines are offered in the nine state universities at both the upper undergraduate level and the graduate level. Figure 11 presents information on these programs. In 1974-75 some 63,000 (55,200 FTE) students registered for upper undergraduate courses in the State University System. It is estimated that about one sixth of their coursework was taken for purposes of general education, with the rest in areas related to their majors. During the same year approximately 15,600 graduate students (20,500 FTE) were enrolled in the state universities. In addition, there were 3,200 undergraduate and graduate students in the health center and in agricultural science at the University of Florida, and in the medical center at the University of South Florida. These programs appear in Figure 11 under "Professional Schools." The cost in 1976 dollars of all Goal 4 and 5 programs--upper level undergraduate, graduate and special professional schools--was about $155.8 million for the 1974-75 school year.

FIGURE 11

GOALS 4 & 5: ADVANCED AND PROFESSIONAL[1]

1974-75, 1980-81, 1985-86

YEARS	PROGRAMS	FTE Students[2] (In 1000's)	Total Expenditures (In millions)[3]	Total Expenditures per FTE[4]	General Revenue	General Revenue per FTE[4]
1974-75	UPPER LEVEL[5] UNDERGRADUATE (83%)	45.8	$ 87.6	$1913	$ 65.7	$1434
	GRADUATE	20.15	55.9	2727	44.6	2176
	PROFESSIONAL[6] SCHOOLS	3.2	12.3	3844	8.6	2687
	TOTAL	69.5	$155.8		$118.9	
1980-81	UPPER LEVEL UNDERGRADUATE (83%)	62.5	$131.4	$2102	$ 92.0	$1472
	GRADUATE	23.5	70.6	3004	49.4	2102
	PROFESSIONAL SCHOOLS	5.2	22.3	4288	15.6	3000
	TOTAL	91.2	$224.3		$157.0	
1985-86	UPPER LEVEL UNDERGRADUATE (83%)	69.0	$145.1	$2103	$101.6	$1472
	GRADUATE	26.4	79.2	3000	55.5	2102
	PROFESSIONAL SCHOOLS	5.6	24.4	4357	17.1	3053
	TOTAL	101.0	$248.7		$174.2	

[1]Expenditures for 1980-81 and 1985-86 are in 1976 dollars, with no allowances made for inflation.
[2]In three-quarter averages.
[3]Includes tuition, fees, federal funds, and other funds.
[4]Instruction only. Does not include Research/Service.
[5]16% of Upper Level Undergraduate is categorized as "General Education", and is not included in the above.
[6]Includes only the health centers at the University of Florida and the University of South Florida, and the Institute of Food and Agricultural Sciences at the University of Florida.

The State University System expects to enroll 86,300 students (75,000 FTE) in upper level undergraduate classes by 1980, 18,600 students in graduate school, (23,500 FTE including summer school) and 4,700 students in the health centers and agricultural science institute, with total expenditures for advanced and professional program at about $224.3 million. These programs will enroll approximately 123,200 students by 1985-86, at a cost of about $248.7 (1976 dollars) in the areas of Goal 4 and 5. As can be seen in Figure 12, this represents a growth that is less than the population growth projected for adults age 18-44 for the upper level undergraduate program,

FIGURE 12

ADVANCED AND PROFESSIONAL
ENROLLMENT AS A PERCENTAGE OF POPULATION AGED 18-44

	74-75	80-81	85-86
Upper Level Undergraduate Enrollment as % of population age 18-44	2.3%	2.6%	2.4%
Graduate Enrollment as % of population age 18-44	.6%	.55%	.5%
Professional Schools Enrollment as % of population age 18-44	.1%	.1%	.1%

and about the same for the other two programs. Costs per F.T.E. are expected to go up about 10% for the first two programs, and about 15% for the professional schools.

Goal 6. Research and Development. Although there are scattered research projects being carried on in other areas of public education, most of the research effort takes place at the university level. There are literally thousands of formal research projects currently in progress in the State University System. In addition, there are numerous other research activities. These research activities could be categorized into four groups, based largely on the source of funds used to support each.

The first group of research activities includes individual sponsored research and training projects funded through Contracts and Grants received by the universities. During the fiscal year 1974-75, the total expenditures from Contracts and Grants for research and training projects amounted to over $67 million. During that same year, the State University System pledged nearly $7.5 million of resources to be used in conjunction with new Contracts and Grants awarded to the nine SUS institutions. As another measure of the Contract and Grant research activity, there are more than 3,000 active research projects during the 1974-75 fiscal year.

The second major use of research funds is for the support of systemwide institutes and research centers. Nearly $1.2 million of state funds were allocated to the institutes and research centers for the 1975-76 fiscal year. Of this total, $1 million went to the Solar Energy Center while the remaining $200,000 were allocated to the Institute of Oceanography, the Sea Grant program, and support for the Mote Marine Laboratory.

Although many of the research projects in the previous two categories are directly related to solving the problems of the State of Florida, a third group of research activities is specifically designed to be state related. There are currently 46 projects that were funded from the $1 million that were allocated for state related research during the 1975-76 fiscal year.

The fourth group of research activities encompasses the individual research conducted within academic departments in the several institutions of the State University System. Typically, these research activities involve small formal research projects, released time for faculty members to write research proposals in an attempt to secure a Contract or Grant, research that is necessary for faculty members to remain up to date and competent in their selected fields of specialization, and numerous other activities, some of which are related to graduate student thesis and disseration research topics. Some expenditures associated with these activities are included as an integral part of the expenditures given for Goals 2, 4, and 5. However, instructional activity has been separated from this departmental research to the extent possible in order to assign a total cost of $35.5 million to the latter activity.

Another set of activities within the universities is usually classified as public service. A major portion of service is the application of the results of research and academic experience to the public benefit. Hence, these activities, which require some state resources, they are described under the goal of research. Examples of service activities are public broadcasting, agricultural extension services, and university hospital services. The cost of these activities in 1974-75 is estimated at $51 million.

Expenditures from all groups of research activities for 1974-75 were about $163 million, of which $94.7 million came from state sources. Although it is difficult to make an accurate projection of expenditures for research over the next ten years, it is most likely to grow at about the same rate as the state population. This would mean that by 1980 the State University System would be spending about $196 million in research that is not directly supporting instruction ($114 million from state sources). By 1985 the universities would be spending in terms of today's dollars about $222 million ($129 million from the state) for that purpose.

Goal 7. Recreation and Leisure Skills. Leisure time activities are assuming more and more importance in modern life and will continue to do so in the future. Over the next ten years Florida citizens are likely to achieve a shorter work week, a daily schedule that includes fewer hours spent in taking care of every day necessities, earlier retirement,

and a longer life span. It will be necessary from the standpoint of personal development, and mental and physical health that creative and fulfilling ways of using leisure time be found. Some people use their leisure time for activities within the area of general education. The interest of others lies in areas that might be defined as recreation.

Recreation and leisure skills sometime come as a result of a life-long interest. As such, they may have been developed as a part of the elementary or secondary general education program. Examples are sports interest which evolved out of physical education classes or an interest in carpentry that resulted from an industrial arts course. For adults who have not developed such interests or who wish to broaden their experience, courses are offered by the community colleges and the universities which satisfy these needs. Such courses are normally supported with student fees. During 1974-75 some 125,500 individuals participated in these courses at a cost to the students of about $5 million.

Over the next ten years interest in both formal and informal programs for pursuing recreational and leisure skills is likely to increase sharply. The responsibility for providing these programs will be shared by public education, private institutions, and such public institutions as libraries, radio and television, and local recreation departments. It may be that the public education will assume a smaller role in directly providing recreation and leisure skill courses and a greater role in planning and coordination. Where the schools, colleges and universities need to be involved directly is where such programs need the kind of facilities which the schools already possess--facilities which often go unused in off-school hours.

Recreation and leisure programs are usually offered on demand. Therefore traditionally very little long-range planning has been done in this area. The community colleges and the State University projections are that by 1985 these programs will serve some 187,000 people at a cost in terms of today's dollars of about $18 million.